

Contents Volume 189

Regular Letters

Survival of bacteria exposed to extreme acceleration: implications for panspermia R.M.E. Mastrapa, H. Glanzberg, J.N. Head, H.J. Melosh and W.L. Nicholson	1
Crack-induced seismic anisotropy in the oceanic crust across the East Pacific Rise (9°30'N) R.A. Dunn and D.R. Toomey	9
Metamorphic devolatilization of subducted oceanic metabasalts: implications for seismicity, arc magmatism and volatile recycling D.M. Kerrick and J.A.D. Connolly	19
Hotspot activity and plume pulses recorded by geometry of spreading axes M. Abelson and A. Agnon	31
Subducted oceanic lithosphere and the origin of the 'high μ ' basalt helium isotopic signature M. Moreira and M.D. Kurz	49
Radiogenic ingrowth in systems with multiple reservoirs: applications to the differentiation of the mantle–crust system F. Albarède	59
Degree-1 mantle convection and the crustal dichotomy on Mars S. Zhong and M.T. Zuber	75
A novel iron sulphide mineral switch and its implications for Earth and planetary science D. Rickard, I.B. Butler and A. Oldroyd	85
En echelon volcanic elongate ridges connecting intraplate Foundation Chain volcanism to the Pacific–Antarctic spreading center J.M. O'Connor, P. Stoffers and J.R. Wijbrans	93
Reappraisal of the Arabia–India–Somalia triple junction kinematics M. Fournier, P. Patriat and S. Leroy	103
On the dynamics of the Juan de Fuca plate R. Govers and P.T. Meijer	115
Current plate velocities relative to hotspots: implications for hotspot motion, mantle viscosity and global reference frame S. Wang and R. Wang	133
Seismic evidence for a thermo-chemical boundary at the base of the Earth's mantle L. Wen, P. Silver, D. James and R. Kuehnel	141
Evidence for a sharp lateral variation of velocity at the core–mantle boundary from multipathed PKPab S.-N. Luo, S. Ni and D.V. Helmberger	155
Are mantle plumes adiabatic? C. Matyska and D.A. Yuen	165
Cr-spinel, an excellent micro-container for retaining primitive melts – implications for a hydrous plume origin for komatiites K. Shimizu, T. Komiya, K. Hirose, N. Shimizu and S. Maruyama	177
The differentiation trend of the Skaergaard intrusion and the timing of magnetite crystallization: iron enrichment revisited Y.D. Jang, H.R. Naslund and A.R. McBirney	189
Post-caldera volcanism: in situ measurement of U–Pb age and oxygen isotope ratio in Pleistocene zircons from Yellowstone caldera I.N. Bindeman, J.W. Valley, J.L. Wooden and H.M. Persing	197
Detrital zircon geochronology and grain-size analysis of a ~2800 Ma Mesoarchean proto-cratonic cover succession, Slave Province, Canada K.N. Sircombe, W. Bleeker and R.A. Stern	207
Nd- and Pb-isotopic variations through the upper oceanic crust in DSDP/ODP Hole 504B, Costa Rica Rift R.B. Pedersen and H. Furnes	221

Sulfur isotope systematics of basaltic lavas from Indonesia: implications for the sulfur cycle in subduction zones J.C.M. de Hoog, B.E. Taylor and M.J. van Bergen	237
A kinematic model for recrystallization and texture development in olivine polycrystals É. Kaminski and N.M. Ribe	253
Quantification of magnetic coercivity components by the analysis of acquisition curves of isothermal remanent magnetisation P.P. Kruiver, M.J. Dekkers and D. Heslop	269
Role of oceans as biogenic sources of selenium D. Amouroux, P.S. Liss, E. Tessier, M. Hamren-Larsson and O.F.X. Donard	277
Laser-ablation microprobe (LAM)-ICPMS unravels the highly siderophile element geochemistry of the oceanic mantle A. Luguet, O. Alard, J.P. Lorand, N.J. Pearson, C. Ryan and S.Y. O'Reilly	285
Extreme efficiency of mud volcanism in dewatering accretionary prisms A. Kopf, D. Klaeschen and J. Mascle	295
<i>Author Index Volume 189</i>	314

